Ontario

2002

CROP BUDGETS

Publication 60

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These crop budgets are a simple format for estimating expenses. The sample costs are only a guide to illustrate a method of preparing your projections. They are based on many assumptions, including seeding rates, levels of fertilizer use, etc. Due to regional differences, there may be considerable variation in results.

To project your breakeven price after total costs, enter your farm figures in the spaces provided. The resulting estimate will assist you in choosing your crop mix, and setting target prices and marketing strategies for your farm.

MINISTRY OF AGRICULTURE, FOOD AND RURAL AFFAIRS

2002 CROP BUDGETS

Crop budgets are a management tool to estimate costs and evaluate cropping alternatives. The sample costs are not averages or recommended treatments. The budgets comprise treatments derived from crop advisors in the areas where the crops are commonly grown. There will be differences due to growing region, cropping practices, individual needs, and yield expectations. **Budgets are based on conventional tillage practices. Seed costs are for non-GM varieties.**

The increase in Identity Preserved (IP) crops requires budgeting for any extra expenses and revenue — for example increased seed, weed control, storage and equipment cleaning costs. Please note that some of the budgets provide a line item for this.

Interest rates were calculated at 5% for the period between planting and harvest.

These budgets will be most meaningful if you use your expected yields and specific costs in developing production plans. Sample costs were taken from the 2002 B.E.A.R. program budgets.

The sample operating and overhead costs for machinery are averages derived from crop-cost studies and Statistics Canada. These averages represent a wide range of individual results. It is recommended that you use your records to derive your costs. The crop insurance premiums shown are the producer premiums for the 2002 crop at the highest, fixed-price coverage level.

Experience is the best guide to help budget machinery costs. Prior year's statements of income and expenses can provide information on equipment repairs, maintenance, and fuel costs. The portion of those costs that relate to crop production can be divided by the acres of crop produced to arrive at a cost per acre.

Overhead expenses are a major part of the total cost of doing business. In addition to the depreciation of machinery, include depreciation on all related tools and storage buildings. Land costs would include property tax and any other land related costs. Return on investment is an opportunity cost to you — the rate of return that you expect or want on your invested capital.

If there are significant debt commitments for land and equipment, an alternative method of budgeting overhead expenses is to use the debt servicing requirements. In this case, use the actual interest and principal payment commitments, rather than depreciation and expected return on invested capital.

Other overhead expenses should include insurance and storage. In all cases, divide overhead expenses by the acreage of crop to express costs on a per acre basis.

"Total Revenue" is the yield you expect multiplied by the price you expect, plus any returns from the Market Revenue Insurance Program. The farmer's share of the market revenue premium is 1/3rd of the pay out and will be deducted from any announced payment. Yield information is most accurate if based on your experience with the land and techniques you will be using. If you do not have such records, check with AGRICORP or a local farm supply dealer. They can help you develop plans and reasonable expectations for your crops.

"Gross Margin" is the difference between total operating expenses and total revenue. "Operating Expenses" (seed, fertilizer, fuel, repairs) change with the crop grown and the production blend used. "Fixed Costs" (e.g., depreciation, mortgage interest, building and liability insurance, office expenses) will show little or no change whether one crop or another is grown. "Gross Margin" is a quick and easy measure for comparing relative profitability among your cropping choices.

Table 1. Adjustment for Nitrogen Requirement to crops following a legume crop.

Type of crop	N requirement reduction (kg/ha) for all crops
Less than ⅓ legume	0
⅓ to ½ legume	55
½ or more legume	100
Perennial legumes seeded/ploughed in same year	45
Soybean and field bean residue	0

Use this table to help calculate the nitrogen credit value available to following crops in the Alfalfa Hay budget.
Source: *Publication 296, Field Crop Recommendations, 1999-2000.*

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ALFALFA HAY

DIRECT SEEDING ESTABLISHMENT	Sample Costs/Acre	Your Farm Budget
Seed — 12 lb/acre alfalfa	49.20	
Other seed	1.00	
Inoculant	1.00	
Fertilizer — 125 kg/ha 8-32-16	15.75	
— 125 kg/ha 0-0-60 (applied in fall)	13.25	
Herbicide (if necessary)	13.20	
Crop insurance	2.40	
Tractor and machine expenses	11.50	
Total Establishment Expenses	**107.30**	
ANNUAL OPERATING EXPENSES (assuming two cuts)		
Tractor and Machine Expenses		
Harvesting 1st cut — Fuel (11 L)	4.90	
Repairs	7.20	
Harvesting 2nd cut — Fuel (7 L)	3.13	
Repairs	5.15	
Twine	8.20	
Crop insurance	5.00	
Custom work		
Other costs		
Store		
Rent and labour	8.00	
Interest on operating	1.90	
Total Annual Operating Expenses	**43.48**	
Note: Assuming three cuts, the Annual Operating Cost would increase per acre		
REVENUE		
Expected Yield _____		
Expected Price _____		
Total Revenue (Yield x Price)		
GROSS MARGIN (Revenue – Operating Expenses)		
OVERHEAD EXPENSES		
Machinery — Depreciation	26.00	
— Interest on investment	12.00	
Land		
Other overhead		
NITROGEN CREDIT TO FOLLOWING CROPS IN ROTATION		
Nitrogen credit ($/acre = N reduction(from Table 1 x price of N)		
Grain yield increase		
Total benefits/year		
TOTAL EXPENSES		

BARLEY

OPERATING EXPENSES		Sample Costs/Acre	Your Farm Budget
Seed	— 120 lb/ac certified treated	25.40	
Fertilizer	— 150 kg/ha Urea (2800 or less CHU)	18.10	
	— 100 kg/ha Urea (2800 or more CHU)	12.10	
	— 50 kg/ha P	15.20	
	— 50 kg/ha K	9.00	
Herbicide	— Annual grasses	23.35	
	— Broadleaf	5.10	
Tractor and Machine Expenses			
Fuel (28 L)		12.50	
Repairs and maintenance		20.50	
Crop insurance		4.50	
Custom work	(Fertilizer application)	6.10	
	(Chemical application)	7.10	
	Other		
Trucking			
Storage			
Land rent			
Consulting/labour			
Interest on operating		3.70	
	Total Operating Expenses — Grain (2800 or less CHU)	**150.55**	
	Total Operating Expenses — Grain (2800 + CHU)	**144.55**	
Expenses for straw			
Tractor and machine expenses			
Fuel (6 L)		2.70	
Repairs and maintenance		5.15	
Twine		3.60	
Other			
	Total Operating Expenses — Straw	**11.45**	
	Total Operating Expenses (2800 or less CHU)	**162.00**	
	Total Operating Expenses (2800 + CHU)	**156.00**	

REVENUE

Expected Barley Yield _____
Expected Barley Yield _____
Total Market Revenue (Yield x Price)
Market Revenue Insurance Payment
Total Barley Revenue
Expected Straw Yield _____
Expected Straw Price _____
Total Straw Revenue (Yield x Price)
Total Revenue
GROSS MARGIN (Revenue – Operating Expenses)

OVERHEAD EXPENSES

		Barley Only	Barley +Straw	
Machinery	— Depreciation	29.00	35.00	
	— Interest on investment	14.25	17.00	
Land				
Other Overhead				
	TOTAL EXPENSES			

Breakeven price on your farm is: (total expenses/expected yield)

SPRING CANOLA

OPERATING EXPENSES		Sample Costs/Acre	Your Farm Budget
Seed	— 5 lb/acre – open pollinated	14.50	
or	— 5 lb/acre – hybrid	26.00	
Fertilizer	— 150 kg/ha 6-24-24	17.30	
	— 250 kg/ha Urea	34.00	
Herbicide	— Preplant, incorporated	13.20	
or	— Grass control, postemerge, if needed	20.30	
	— Mustard control, if needed	11.70	
	— Other weed control		
Technology use agreement		15.00	
Insecticide		17.40	
Tractor and Machine Expenses			
Fuel (27 L)		12.00	
Repairs and maintenance		22.65	
Marketing fees ($2.50/tonne)			
Crop insurance		8.25	
Custom work	(fertilizer application)	6.10	
	(chemical application)	7.10	
	Other		
Trucking			
Storage			
Land rent			
Consulting/labour			
Interest on operating		5.10	
	Total Operating Expenses (Open Pollinated)	**204.60**	
	Total Operating Expenses (Hybrid)	**216.10**	
REVENUE			
Expected Yield _____			
Expected Price _____			
	Total Market Revenue (Yield x Price)		
Market Revenue Insurance Payment			
	Total Revenue		
GROSS MARGIN (Revenue – Operating Expenses)			
OVERHEAD EXPENSES			
Machinery	— Depreciation	28.50	
	— Interest on investment	13.00	
Land			
Other overhead			
	TOTAL EXPENSES		

Breakeven price on your farm is: (total expenses/expected yield)

COLOURED BEANS

OPERATING EXPENSES	Sample Costs/Acre	Your Farm Budget
Seed — 80 lb/acre (wide rows)	69.00	
Fertilizer — 110 kg/ha 8-32-16	13.90	
— 175 kg/ha Urea	21.15	
Herbicide — annual grass	14.20	
— broadleaf weeds	14.20	
— other weed control, where needed		
Insecticide, if required		
Fungicide, if required		
Seed treatment		
Tractor and Machine Expenses		
Fuel (30 L)	13.35	
Repairs and maintenance	16.50	
Marketing fees ($5.00/tonne)		
Crop insurance	29.55	
Custom work		
Trucking		
Land rent		
Consulting/labour		
Interest on operating	4.80	
Total Operating Expenses	**196.65**	
REVENUE		
Expected Yield _____		
Expected Price _____		
Total Market Revenue (Yield x Price)		
Market Revenue Insurance Payment		
Total Revenue		
GROSS MARGIN (Revenue – Operating Expenses)		
OVERHEAD EXPENSES		
Machinery — Depreciation	31.20	
— Interest on investment	15.20	
Land		
Other overhead		
TOTAL EXPENSES		

Breakeven price on your farm is: (total expenses/expected yield)

GRAIN CORN

OPERATING EXPENSES	Sample Costs/Acre	Your Farm Budget
Seed — 30,000 kernels	49.90	
Fertilizer — 70 kg/ha MAP 11-52-0	10.40	
— 80 kg/ha Muriate of Potash 0-0-60	8.50	
— 575 kg/ha of 28-0-0 U.A.N.	46.20	
Herbicide — annual grass control, if needed	20.30	
— broadleaf weed control, if needed	8.10	
— other weed control, where needed		
Insecticide, if required	15.40	
Seed treatment	2.00	
Tractor and Machine Expenses		
Fuel (35 L)	15.60	
Repairs and maintenance	19.60	
Marketing fees ($0.40/tonne)		
Crop insurance	11.60	
Custom work (apply nitrogen)	9.00	
(chemical applications, if needed)	7.10	
other		
Trucking		
Land rent		
Consulting/labour		
Storage		
Interest on operating	5.60	
Total Operating Expenses	**229.50**	
REVENUE		
Expected Yield _____		
Expected Price _____		
Total Market Revenue (Yield x Price)		
Market Revenue Insurance Payment		
Total Revenue		
GROSS MARGIN (Revenue – Operating Expenses)		
OVERHEAD EXPENSES		
Machinery — Depreciation	34.20	
— Interest on investment	16.60	
Land		
Other overhead		
TOTAL EXPENSES		

Breakeven price on your farm is: (total expenses/expected yield)

SILAGE CORN

OPERATING EXPENSES	Sample Costs/Acre	Your Farm Budget
Seed — 31,000 kernels	39.90	
Fertilizer — 70 kg/ha MAP 11-52-0	10.40	
— 80 kg/ha Muriate of Potash 0-0-60	8.50	
— 575 kg/ha of 28-0-0 U.A.N.	46.20	
Herbicide — annual grass	20.30	
— broadleaf weeds	8.10	
— other weed control, where needed		
Insecticide, if required	15.40	
Seed treatment	2.00	
Tractor and Machine Expenses		
Fuel (49 L)	21.80	
Repairs and maintenance	20.60	
Silo repair and maintenance		
Crop insurance	11.60	
Silage inoculant		
Custom work (apply nitrogen)	9.00	
(chemical applications, if needed)	7.10	
other		
Land rent		
Consulting/labour		
Interest on operating	5.50	
Total Operating Expenses	**226.40**	
REVENUE		
Expected Yield _____		
Expected Price _____		
Total Market Revenue (Yield x Price)		
Market Revenue Insurance Payment		
Total Revenue		
GROSS MARGIN (Revenue – Operating Expenses)		
OVERHEAD EXPENSES		
Machinery — Depreciation	36.50	
— Interest on investment	18.00	
Land		
Other overhead		
TOTAL EXPENSES		

Breakeven price on your farm is: (total expenses/expected yield)

OATS

OPERATING EXPENSES	Sample Costs/Acre	Your Farm Budget
Seed — 85 lb/acre certified treated	22.40	
Fertilizer — 100 kg/ha 6-24-24	11.50	
— 65 kg/ha Urea (southern Ontario)	7.85	
— 100 kg/ha Urea (Northern Ontario)	12.10	
Herbicide — easy-to-control broadleaf, if needed	2.00	
— hard-to-control broadleaf, if needed	5.10	
— other weed control, where needed		
Tractor and Machine Expenses		
Fuel (28 L)	12.50	
Repairs and maintenance	20.60	
Crop insurance	4.50	
Custom work (fertilizer application)	6.10	
(chemical application)	7.10	
other		
Trucking		
Storage		
Land rent		
Consulting/labour		
Interest on operating	2.80	
Total Operating Expenses — Grain	**102.45**	
Expenses for Straw		
Tractor and Machine Expenses		
Fuel (6 L)	2.70	
Repairs and maintenance	5.15	
Twine	3.60	
Other		
Total Operating Expenses — Straw	**11.45**	
Total Operating Expenses	**113.90**	
REVENUE		
Expected Oat Yield _____		
Expected Oat Price _____		
Total Market Revenue (Yield x Price)		
Market Revenue Insurance Payment		
Total Oats Revenue		
Expected Straw Yield _____		
Expected Straw Price _____		
Total Straw Revenue (Yield x Price)		
Total Revenue		
GROSS MARGIN (Revenue – Operating Expenses)		

OVERHEAD EXPENSES	Oats Only	Oats & Straw	
Machinery — Depreciation	28.90	34.80	
— Interest on investment	14.20	17.10	
Land			
Other overhead			
TOTAL EXPENSES			

Breakeven price on your farm is: (total expenses/expected yield)

SOYBEAN

OPERATING EXPENSES	Sample Costs/Acre	Your Farm Budget
Seed — 225,000 seeds/acre in 7" rows*	30.75	
Fertilizer — 100 kg/ha 6-24-24	11.50	
Herbicide — annual grass	18.30	
— broadleaf weeds	24.40	
— other weed control, where needed		
Seed treatment/inoculant, where needed	3.00	
Tractor and Machine Expenses		
Fuel (27 L)	12.00	
Repairs and maintenance	16.50	
Marketing fees ($0.70/tonne)		
Crop insurance	10.60	
Drying		
Crop insurance		
Custom work		
Added expense for IP		
Trucking		
Storage		
Land rent		
Consulting/labour		
Interest on operating	3.20	
Total Operating Expenses	**130.25**	
REVENUE		
Expected Yield _____		
Expected Price _____		
Total Market Revenue (Yield x Price)		
Additional Revenue from IP		
Market Revenue Insurance Payment		
Total Revenue		
GROSS MARGIN (Revenue – Operating Expenses)		
OVERHEAD EXPENSES		
Machinery — Depreciation	28.30	
— Interest on investment	13.30	
Land		
Other overhead		
TOTAL EXPENSES		
Breakeven price on your farm is: (total expenses/expected yield)		

*Note: 180,000 seeds/acre in 14" rows

SOFT WINTER WHEAT

OPERATING EXPENSES	Sample Costs/Acre	Your Farm Budget
Seed — 130 lb/acre certified treated — white	35.45	
or — 130 lb/acre certified treated — red	47.90	
Fertilizer — 5 L/ha liquid fertilizer	14.00	
— 225 kg/ha Urea	27.20	
Herbicide — broadleaf weeds	5.10	
— other weed control, where needed		
Fungicide		
Tractor and Machine Expenses		
Fuel (21 L)	9.35	
Repairs and maintenance	18.50	
Crop insurance	6.55	
Marketing Board fee ($1.00/tonne)		
Custom work (fertilizer application)	9.00	
Added expense for IP		
Trucking		
Land rent		
Consulting/labour		
Interest on operating	3.60	
Total Operating Expenses — Grain (White)	**128.75**	
Total Operating Expenses — Grain (Red)	**141.20**	
Expenses for Straw		
Tractor and Machine Expenses		
Fuel (6 L)	2.70	
Repairs and maintenance	5.15	
Twine	3.60	
Other		
Total Operating Expenses — Straw	**11.45**	
Total Operating Expenses — (White)	**140.20**	
Total Operating Expenses — (Red)	**152.65**	

REVENUE

Expected Wheat Yield _____
Expected Wheat Price _____

Total Market Revenue (Yield x Price)		
Additional income from IP		
Market Revenue Insurance Payment		
Total Wheat Revenue		

Expected Straw Yield _____
Expected Straw Price _____

Total Straw Revenue (Yield x Price)		
Total Revenue		
GROSS MARGIN (Revenue – Operating Expenses)		

OVERHEAD EXPENSES

	Wheat Only	Wheat & Straw	
Machinery — Depreciation	25.40	31.20	
— Interest on investment	12.30	15.20	
Land			
Other overhead			
TOTAL EXPENSES			
Breakeven price on your farm is: (total expenses/expected yield)			

HARD RED WINTER WHEAT

OPERATING EXPENSES	Sample Costs/Acre	Your Farm Budget
Seed — 150 lb/acre certified treated	43.60	
Fertilizer — 5 L/ha liquid fertilizer	14.00	
— 325 kg/ha Urea	39.25	
Herbicide — broadleaf weeds	5.10	
— other weed control, where needed		
Fungicide		
Tractor and Machine Expenses		
Fuel (21 L)	9.35	
Repairs and maintenance	18.50	
Crop insurance	6.55	
Marketing Board fee ($1.00/tonne)		
Custom work (fertilizer application)	9.00	
Added expense for IP		
Trucking		
Land rent		
Consulting/labour		
Interest on operating	6.55	
Total Operating Expenses — Grain	**151.90**	
Expenses for Straw		
Tractor and Machine Expenses		
Fuel (6 L)	2.70	
Repairs and maintenance	5.15	
Twine	3.60	
Other		
Total Operating Expenses — Straw	**11.45**	
Total Operating Expenses	**163.35**	
REVENUE		
Expected Wheat Yield _____		
Expected Wheat Price _____		
Total Market Revenue (Yield x Price)		
Additional income from IP		
Market Revenue Insurance Payment		
Total Wheat Revenue		
Expected Straw Yield _____		
Expected Straw Price _____		
Total Straw Revenue (Yield x Price)		
Total Revenue		
GROSS MARGIN (Revenue – Operating Expenses)		

OVERHEAD EXPENSES

	Wheat Only	Wheat & Straw	
Machinery — Depreciation	25.40	31.20	
— Interest on investment	12.30	15.20	
Land			
Other overhead			
TOTAL EXPENSES			

Breakeven price on your farm is: (total expenses/expected yield)

HARD RED SPRING WHEAT

OPERATING EXPENSES	Sample Costs/Acre	Your Farm Budget
Seed — 130 lb/acre certified treated	41.70	
Fertilizer — 100 kg/ha 6-24-24	11.50	
— 140 kg/ha Urea	16.90	
Herbicide — broadleaf weeds, if needed	5.10	
— grass or wild oat control, if needed	20.30	
— other weed control, where needed		
Fungicide		
Tractor and Machine Expenses		
Fuel (28 L)	12.50	
Repairs and maintenance	27.80	
Crop insurance	5.20	
Marketing Board fee ($1.00/tonne)		
Custom work (fertilizer application)	6.10	
(chemical application), if needed	7.10	
other		
Added expense for IP		
Trucking		
Land rent		
Consulting/labour		
Interest on operating	4.15	
Total Operating Expenses — Grain	**158.35**	
Expenses for Straw		
Tractor and Machine Expenses		
Fuel (6 L)	2.70	
Repairs and maintenance	5.15	
Twine	4.10	
Other		
Total Operating Expenses — Straw	**11.95**	
Total Operating Expenses	**170.30**	
REVENUE		
Expected Wheat Yield _____		
Expected Wheat Price _____		
Total Market Revenue (Yield x Price)		
Additional income from IP		
Market Revenue Insurance Payment		
Total Wheat Revenue		
Expected Straw Yield _____		
Expected Straw Price _____		
Total Straw Revenue (Yield x Price)		
Total Revenue		
GROSS MARGIN (Revenue – Operating Expenses)		

OVERHEAD EXPENSES		Wheat Only	Wheat & Straw	
Machinery	— Depreciation	28.90	35.40	
	— Interest on investment	14.20	17.00	
Land				
Other overhead				
TOTAL EXPENSES				
Breakeven price on your farm is: (total expenses/expected yield)				

WHITE BEANS

OPERATING EXPENSES	Sample Costs/Acre	Your Farm Budget
Seed — 100,000 seeds/acre (wide rows)*	30.00	
Fertilizer — 170 kg/ha 6-24-24	19.60	
— nitrogen, if required		
Herbicide — annual grass	14.20	
— broadleaf weeds	25.40	
— other weed control, where needed		
Fungicide, if required		
Seed treatment	3.00	
Tractor and Machine Expenses		
Fuel (32 L)	14.25	
Repairs and maintenance	25.75	
Marketing fees ($5.70/tonne)		
Crop insurance	23.65	
Crop insurance		
Custom work		
Trucking		
Land rent		
Consulting/labour		
Interest on operating	3.90	
Total Operating Expenses	**159.75**	
REVENUE		
Expected Yield _____		
Expected Price _____		
Total Market Revenue (Yield x Price)		
Additional revenue from IP		
Market Revenue Insurance Payment		
Total Revenue		
GROSS MARGIN (Revenue – Operating Expenses)		
OVERHEAD EXPENSES		
Machinery — Depreciation	35.40	
— Interest on investment	17.00	
Land		
Other overhead		
TOTAL EXPENSES		
Breakeven price on your farm is: (total expenses/expected yield)		

*Note: 130,000 –150,000 seeds/acre in 15" rows